CLAIMS

What is claimed is:

1. A cardiac lead, comprising:

a lead body comprising one or more electrical conductors with associated insulators and having a proximal end and a distal end; and

an epicardial electrode assembly situated at the distal end of the lead body, the electrode assembly comprising:

an electrode comprising an active fixation arrangement, the electrode electrically coupled to at least one of the electrical conductors; and

a fluoropolymer coating or sleeve provided on some or all of the active fixation arrangement.

2. The lead of claim 1, wherein the electrode assembly further comprises a polymeric coating disposed on at least the active fixation arrangement, and the fluoropolymer coating or sleeve is disposed over the polymeric coating.

3. The lead of claim 1, wherein the fluoropolymer coating or sleeve comprises a polytetrafloroethelene coating or sleeve.

4. The lead of claim 1, wherein the fluoropolymer coating or sleeve comprises an ePTFE coating or sleeve.

5. The lead of claim 1, further comprising a steroid eluting sleeve disposed on the active fixation arrangement.

6. A cardiac lead, comprising:

a lead body comprising one or more electrical conductors with associated insulators and having a proximal end and a distal end;

a fixation arrangement that fixes the lead to tissue; and

an epicardial electrode assembly situated at the distal end of the lead body, the electrode assembly comprising:

an electrode electrically coupled to at least one of the electrical conductors; and

a fluoropolymer coating or sleeve provided on some or all of the electrode.

7. The lead of claim 6, wherein the electrode assembly further comprises a polymeric coating disposed on the electrode, and the fluoropolymer coating or sleeve is disposed over the polymeric coating.

8. The lead of claim 6, wherein the fluoropolymer coating or sleeve comprises a polytetrafloroethelene coating or sleeve.

9. The lead of claim 6, wherein the fluoropolymer coating or sleeve comprises an ePTFE coating or sleeve.

10. The lead of claim 6, further comprising a steroid eluting sleeve disposed on the electrode.

11. The lead of claim 6, wherein fixation arrangement comprises a passive fixation arrangement.

12. The lead of claim 6, wherein the fixation arrangement comprises a helical fixation arrangement.

13. The lead of claim 6, wherein the fixation arrangement comprises a tined fixation arrangement.

14. A cardiac lead, comprising:

a lead body comprising one or more electrical conductors with associated insulators and having a proximal end and a distal end; and

an endocardial electrode assembly situated at the distal end of the lead body, the electrode assembly comprising:

an electrode comprising an active fixation arrangement, the electrode electrically coupled to at least one of the electrical conductors; and

a fluoropolymer coating or sleeve provided on some or all of the active fixation arrangement.

15. The lead of claim 14, wherein the electrode assembly further comprises a polymeric coating disposed on at least the active fixation arrangement, and the fluoropolymer coating or sleeve is disposed over the polymeric coating.

16. The lead of claim 14, wherein the fluoropolymer coating or sleeve comprises a polytetrafloroethelene coating or sleeve.

17. The lead of claim 14, wherein the fluoropolymer coating or sleeve comprises an ePTFE coating or sleeve.

18. The lead of claim 14, further comprising a steroid eluting sleeve disposed on the active fixation arrangement.

19. A cardiac lead, comprising:

a lead body comprising one or more electrical conductors with associated insulators and having a proximal end and a distal end; and

an endocardial electrode assembly situated at the distal end of the lead body, the electrode assembly comprising:

at least one extendable/retractable electrode, the electrode electrically coupled to at least one of the electrical conductors; and

a fluoropolymer coating or sleeve provided on some or all of the electrode.

20. The lead of claim 19, wherein the electrode assembly further comprises a polymeric coating disposed on the electrode, and the fluoropolymer coating or sleeve is disposed over the polymeric coating.

21. The lead of claim 19, wherein the fluoropolymer coating or sleeve comprises a polytetrafloroethelene coating or sleeve.

22. The lead of claim 19, wherein the fluoropolymer coating or sleeve comprises an ePTFE coating or sleeve.

23. The lead of claim 19, further comprising a steroid eluting sleeve disposed on the electrode.

24. A method of implanting a cardiac lead on a patient's heart, comprising:

accessing, via a patient's chest cavity, an epicardial surface of the heart;

moving an electrode assembly of the epicardial lead to an implant site on the epicardial surface, the electrode assembly comprising:

an electrode comprising an active fixation arrangement; and

a fluoropolymer coating or sleeve provided on some or all of the active fixation arrangement; and

implanting the electrode into myocardial tissue at the implant site by use of the active fixation arrangement.

25. The method of claim 24, wherein the active fixation arrangement comprises a helical shape imparted to the electrode.

26. The method of claim 24, wherein the electrode assembly further comprises a polymeric coating disposed on at least the active fixation arrangement, and the fluoropolymer coating or sleeve is disposed over the polymeric coating.

27. The method of claim 24, wherein the fluoropolymer coating or sleeve comprises a polytetrafloroethelene coating or sleeve.

28. The method of claim 24, wherein the fluoropolymer coating or sleeve comprises an ePTFE coating or sleeve.

29. The method of claim 24, further comprising eluting a steroid at the implant site.

30. A method of implanting a cardiac lead in a patient's heart, comprising:

accessing a chamber of the patient's heart;

moving an electrode assembly of the endocardial lead to an implant site in the heart chamber, the electrode assembly comprising:

an electrode comprising an active fixation arrangement; and

a fluoropolymer coating or sleeve provided on some or all of the active fixation arrangement; and

implanting the electrode into myocardial tissue at the implant site by use of the active fixation arrangement.

31. The method of claim 30, wherein the active fixation arrangement comprises a helical shape imparted to the electrode.

32. The method of claim 30, wherein the electrode assembly further comprises a polymeric coating disposed on at least the active fixation arrangement, and the fluoropolymer coating or sleeve is disposed over the polymeric coating.

33. The method of claim 30, wherein the fluoropolymer coating or sleeve comprises a polytetrafloroethelene coating or sleeve.

34. The method of claim 30, wherein the fluoropolymer coating or sleeve comprises an ePTFE coating or sleeve.

35. The method of claim 30, further comprising eluting a steroid at the implant site.